

REMARKS/ARGUMENTS

Claim 25 has been amended. All other claims are unchanged.

The amendments to claim 25, in which the thickness of the mesh-shaped photoelectron generating member is recited as being "greater than a maximum surface roughness of an underlying layer thereof," is supported by page 26, line 15 to page 27, line 1 of the original specification (see, especially, page 26, lines 20-22). Accordingly the amendments to claim 25 do not involve "new matter."

The rejection of claims 1, 11, 14-18, 23, and 25-28 under 35 USC 103(a) as being unpatentable over Fuji (US 6,159,421) in view of Hirano (US 6,774,561) is respectfully traversed on the grounds that the Fuji and Hirano patents, whether considered individually or in any reasonable combination, fail to disclose or suggest a photoelectron generating plate in which:

- *a thickness of the photoelectron emission layer is greater than a maximum surface roughness of an underlying layer thereof,*

as recited in each of independent claims 1, 15, and 25. By making the thickness of the photoelectron emission layer greater than a maximum surface roughness of an underlying layer, a higher number of negative particles can be steadily generated, as shown in Fig. 5 of the present application. In contrast, Fuji discloses a photoelectron emission layer but not the claimed thickness thereof, while the alleged "photoelectron" emission layer of Hirano, which is said to have the claimed thickness, is actually a light emission layer and not a photoelectron emission layer.

According to the Official Action the feature that the thickness of the photoelectron emission layer is greater than a maximum surface roughness of an underlying layer thereof is disclosed in the Hirano patent. In particular, the Official Action alleges that the light emitting layer 6c of Hirano has a thickness which is greater than that of underlying layer 6b. However, this characterization of layer 6c of Hirano is incorrect. ***Instead of being a photoelectron emission layer, as alleged by the Examiner, layer 6c of Hirano is functions to emit light and does not emit any negative particles.*** Therefore, Hirano does not teach that the thickness of a photoelectron emission layer is greater than a maximum roughness of the underlying layer.

More specifically, Fig. 1D of Hirano shows a light emitting apparatus including a lower electrode 4, an organic layer 6, and a transparent upper electrode 7. As described in col. 6, lines 6-19, the organic layer has an emission layer 6c that emits light upon combination of electrons from the upper electrode and holes from the lower electrode. In other words, Hirano's apparatus and especially the "emission" layer 6c, ***combines electrons and holes to emit light rather than emitting electrons.***

Therefore, Hirano does not teach an apparatus for emitting the negative particles, much less that a thickness of the photoelectron emission layer is greater than a maximum surface roughness of an underlying layer thereof. As described above, Hirano only teaches that a thickness of a light emission layer is greater than a maximum surface roughness of an underlying layer. Since Hirano does not teach the claimed photoelectron emission layer thickness, Hirano could not have suggested modification of the photoelectron emission layer of Fuji to have the claimed photoelectron emission layer thickness, and withdrawal of the rejection of

claims 1, 11, 14-18, 23, and 25-28 under 35 USC 103(a) is respectfully requested.

The rejection of claims 2, 3, 19, and 20 under 35 USC 103(a) as being unpatentable over Fuji (US 6,159,421) in view of Aprile (US 5,418,424) is also respectfully traversed on the grounds that the Aprile patent, like the Fuji patent (or Fuji and Hirano patents), fails to disclose or a photoelectron generating plate in which a thickness of the photoelectron emission layer is greater than a maximum surface roughness of an underlying layer thereof, as recited in each of independent claims 1, 15, and 25. Instead, the Aprile patent is similar to the Fuji patent in that it discloses an electron emission device, but not the photoelectron emission layer thickness recited in each of the independent claims of the present application, from which the rejected claims depend. Accordingly, the Aprile patent does not make up for the deficiencies of the Fuji patent, and withdrawal of the rejection of claims 2, 3, 19, and 20 under 35 USC 103(a) is requested.

CONCLUSION

The Applicant believes that this is a full and complete response to the Office Action. For the reasons discussed above, applicant respectfully submits that the pending claims are in complete condition for allowance. Accordingly, it is respectfully requested that the Examiner's rejections be withdrawn; and that claims 1-3, 11, 14-20, and 23-28 be allowed in their present form.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects, in order to place the case in condition for final allowance, then it is respectfully requested

that such amendment or correction be carried out by Examiner's Amendment and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, the Examiner is invited to telephone the undersigned.

Respectfully submitted,
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